

CLAIMS:

1. A method of reading magnetic information by means of a read head, which is to be placed proximate to a support at the surface of which information is stored, which read head includes a magneto-resistive rod which is to be polarized by means of an electric signal of constant value and serves to supply a data signal whose variations are representative of the magnetic-field variations to which the read head is exposed, which method includes a data signal compression step which is triggered off when a thermal roughness is detected.
2. A method as claimed in claim 1, wherein the value of the data signal is compared with a predetermined threshold value, the result of said comparison either inhibiting or triggering off the compression step.
3. A method as claimed in claim 1, wherein the compression step consists in subjecting the data signal to high-pass filtering.
4. A device for reading magnetic information, comprising:
a read head, which is to be placed proximate to a support at the surface of which information is stored, which read head comprises a magneto-resistive rod, which is to be polarized by means of a constant electrical signal and serves to supply a data signal whose variations are representative of magnetic field variations to which the read head is exposed,
- detection means for detecting a thermal asperity, and
 - compression means for compressing the data signal, which are to be inhibited as long as no thermal asperity is detected.
5. A read device as claimed in claim 4, wherein the detection means include means for comparing the data signal value with a predetermined threshold value, which comparison means are intended to supply a control signal which is representative of the result of such a comparison and which serves to inhibit or authorize the compression operation.

6. A read device as claimed in claim 5, wherein the compression means include a high-pass filter.

5 7. A read device as claimed in claim 6, wherein the compression means additionally include a multiplexer, which is provided with a data input for receiving the data signal, with another data input which is connected to an output of the high-pass filter, and with a selection input for receiving the control signal.

10 8. A read device as claimed in claim 4, comprising:

- a subtracter, which is provided with a first input intended to receive the data signal, a second input, and an output intended to supply an output signal of the device,
- a non-linear gain module, intended to receive the data signal at an input, and to supply an output signal, the gain of this module being substantially zero when the absolute value of its input signal is below a predetermined threshold value, and
- 15 • a low-pass filter provided with an input intended to receive the output signal of the non-linear gain module, and with an output connected to the second input of the subtracter.

9. A read device as claimed in claim 4, comprising:

- 20 • a subtracter, which is provided with a first input for receiving the data signal, a second input, and an output for supplying an output signal of the device,
- a non-linear gain module, intended to receive the output signal of the device at an input, and to supply an output signal, the gain of said module being substantially zero when the absolute value of its input signal is below a predetermined threshold value, and
- 25 • an integrator, which is provided with an input for receiving the output signal of the non-linear gain module, and with an output connected to the second input of the subtracter.

FOI 2001-11247660